



## KEY FEATURES

- 40 to 60 GHz
- WR19 Waveguide with Round Flange
- Excellent VSWR, 1.1:1 Typ.
- 500 mW Power Handling

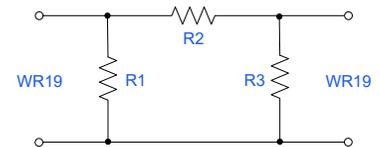
## APPLICATIONS

- Optical Communications
- Test & Measurement
- High-Speed Data Systems
- Instrumentation
- Precision Measurements



Generic photo used for illustration purposes only

## FUNCTIONAL DIAGRAM



## PRODUCT OVERVIEW

The Mini-Circuits catalog model WR19-ATT-3+ is a precision fixed 3 dB 500 mW attenuator. WR19-ATT-3+ operates over an extremely wide frequency range with excellent VSWR and supports a broad range of system and testing applications. Precise performance, excellent VSWR and wide bandwidth make this model an ideal solution for systems requiring accurate attenuation across a very wide frequency range.

ELECTRICAL SPECIFICATIONS AT +25 °C,  $Z_0 = 50 \Omega$ 

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	40	-	60	GHz
Attenuation	40-44	1.5	3.3	4.5	dB
	44-48	1.5	3.3	4.5	
	48-52	1.5	3.3	4.5	
	52-56	1.5	3.4	4.5	
	56-60	1.5	3.6	4.5	
VSWR	40-44	-	1.1	1.7	:1
	44-48	-	1.1	1.7	
	48-52	-	1.1	1.7	
	52-56	-	1.1	1.7	
	56-60	-	1.1	1.7	

ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

Parameter	Ratings
Operating Case Temperature	+10 °C to +40 °C
Storage Temperature	-40 °C to +85 °C

1. Permanent damage may occur if any of these limits are exceeded.



WAVEGUIDE

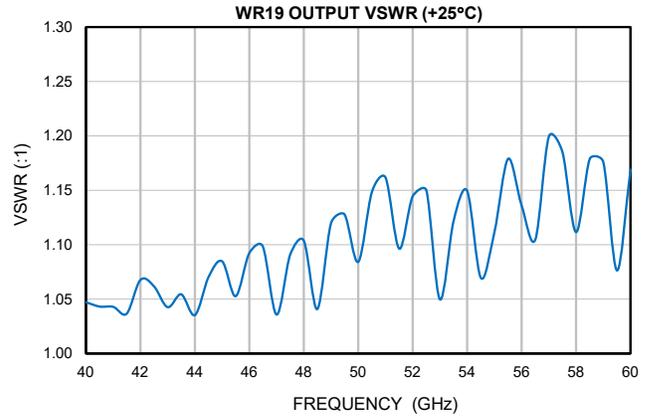
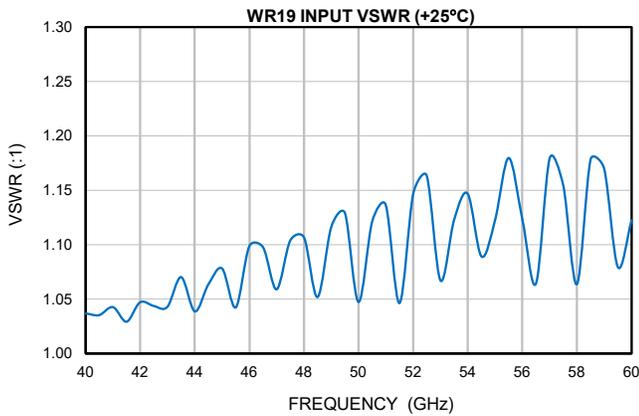
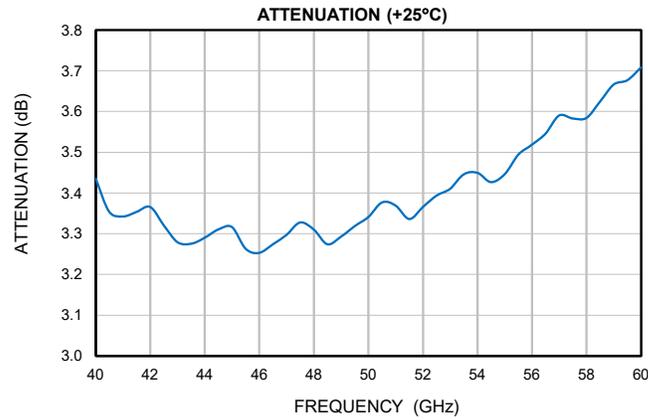
# Fixed Attenuator

## WR19-ATT-3+

Mini-Circuits

50Ω 0.5 W 3 dB 40 to 60 GHz WR19 to WR19 Flange

### TYPICAL PERFORMANCE GRAPHS





WAVEGUIDE

# Fixed Attenuator

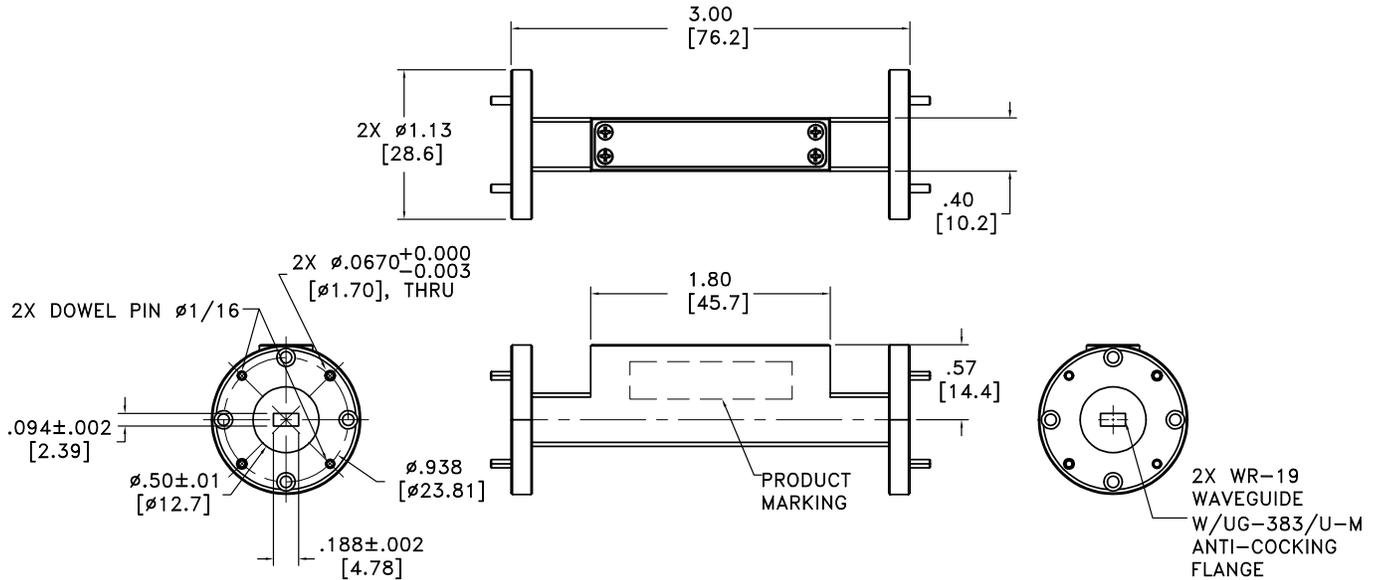
## WR19-ATT-3+

50Ω 0.5 W 3 dB 40 to 60 GHz WR19 to WR19 Flange

### COAXIAL CONNECTIONS

Description	RF1 PORT	RF2 PORT
Connector Type	WR19 Flange	WR19 Flange
Orientation	Straight	Straight

### CASE STYLE DRAWING



Weight: 121.90 grams

Dimensions are in inches [mm]. Tolerances: 2 Pl.  $\pm .03$ ; 3 Pl.  $\pm .015$

### PRODUCT MARKING\*: WR-19-ATT-3+

\*Marking may contain other features or characters for internal lot control.





WAVEGUIDE

# Fixed Attenuator

**WR19-ATT-3+**

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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

<b>Performance Data &amp; Graphs</b>	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
<b>Case Style</b>	UW3808
<b>RoHS Status</b>	Compliant
<b>Environmental Ratings</b>	ENV145

**NOTES**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/terms/viewterm.html](http://www.minicircuits.com/terms/viewterm.html)

